

ON A SPIDER NEW TO SCIENCE
RECENTLY FOUND IN IRELAND.

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[Plate I.].

ERIGONE WELCHII *sp. nov.*

SEVERAL examples of this spider were sent to me by Mr. D. R. Pack-Beresford in the autumn of 1910. These appeared to us to belong to an undescribed species. I submitted the specimens to the Rev. O. Pickard-Cambridge, and to Professor Kulczynski, both of whom confirmed our opinion. In the male sex this spider is very distinct from all the other British species of *Erigone*. The female, however, as is usual in this genus, is not very strikingly different from its congeners, but if the two examples we possess are typical, the structure of the vulva would, I think, enable the species to be recognised without very much difficulty. This organ, however, is subject to a good deal of variation, and possibly the determination of the females of this species may always be difficult.

The CEPHALOTHORAX of the male measures 1.45 mm. in length, it is of a dark reddish-brown colour, almost black in fact. The femora and subsequent joints of the legs and palpi are clear yellow-brown, whilst the falces and coxae are of an intermediate hue. The sternum and maxillae are dark reddish-brown, the latter, as is usual in the genus, being studded in the male sex with numerous large nipple-shaped prominences, each bearing a bristle. In the females these are less numerous, and a good deal smaller.

The ABDOMEN is of a pale dingy brown colour.

The facies of the male is very like that of the other members of the genus. The palpal differences can, however, easily be made out with a pocket lens, and I think that a little practice would enable the species to be recognised with the naked eye.

The FALCES of the male bear on their external borders a series of seven very strong teeth. Some of these, at any rate, bear rather short hairs. The teeth are very much stronger than those found in a similar position in the other British members of the genus, with one exception.

The PALPI of the male are most characteristic. Each femur, near its base, exhibits several extremely long teeth. Each of these bears a hair which usually arises from some point a little removed from the apex of the tooth. These large teeth arise from the whole under-surface of the joint and are arranged uniserially, there not being room for another series of teeth, although very small granulations may be found on the lateral borders of the joint. The large teeth are only three or four in number, the series of hair-bearing processes being continued nearly to the distal end of the joint as a number of tiny granulations, each carrying its hair. This arrangement is found in no other British *Erigone*. The femur is 1.21 mm. in length.

The patella is .51 mm. long. It bears a most characteristic apophysis at its distal end. This is curved, and thus difficult to measure. Seen from the outer side it measures .43 mm. from the dorsal surface of the distal end of the patella to the point where the inward curve occurs, the total length, including the curve, being nearly or quite equal to that of the article itself. In shape the apophysis is tapering, curved, and pointed at the extremity. It is directed downwards, slightly forwards, and finally near its termination it is bent sharply inwards.

The tibia, from its articulation with the patella to the tip of the external process, measures .45 mm. Its height at the apex between the tip of the superior process and that of the inferior one is .31 mm. It presents a slender curved stem with a distal expansion bearing four processes or apophyses. Of these the dorsal or superior one is bluntly pointed. The inferior one is slightly gibbous on its lower surface, but bears no actual tooth in the examples examined. The internal process is squarely truncated, whilst the external one is narrow, pointed and curved, being directed forwards and upwards. The shape of these apophyses is quite unlike that of any of our British species, and differs distinctly from all the figures of the other species shown in Kulczynski's monograph.¹

The tarsus measures .49 mm., it bears a paracymbium similar to that found in other species, and is in no way characteristic.

¹ *Erigoneae Europaeae addenda ad descriptiones. Bulletin de l'Académie des Sciences de Cracovie, Oct., 1902.*

The PALPAL ORGANS are very distinct and complex. The dens medius is of extraordinary size and complicated shape. It rises from the middle of the palpal organs and runs as a broad plate downwards and inwards. The dens posticus is small and inconspicuous. The structure of these organs seems quite unlike that of any other species.

The FEMORA of the walking legs bear a number of hair-carrying prominences. In the case of the two posterior pairs these are very small granulations. On the second pair a median row of granulations are larger and might almost be called denticles, whilst on the first pair these are of enormous size and form a series of very large teeth. They still, however, carry hairs, which usually rise from some place not quite at the apex.

The VULVA of the female is fairly characteristic, but only two specimens are as yet to hand, and it may be found to be a variable character. In these specimens the posterior border forms a rather characteristically shaped ridge, which, if always present, would enable one to identify the species fairly easily. The vulva of *E. longipalpis* Sand. is the one which approaches it most closely, and a further series of *E. Welchii* should be obtained for comparison.

In the male sex *E. Welchii* resembles *E. spinosa* Camb., and differs from all the other British species in possessing a curved patellar apophysis, very strong teeth on the outer borders of the falces, and strong hair-bearing teeth on the femora of the first and second pairs of legs. It is, however, impossible to confuse it with *E. spinosa*. In a male of that species measured by me the patella of the palpus was .40 mm. in length, whilst its apophysis measured from the outer side (inward curve not included) was only .21 mm. long. This apophysis besides being much shorter is directed much more forwards, and its tip is curved inwards and slightly backwards. The article, too, exhibits small lateral denticles. These occur on both sides and are mostly very small, but two on the inner side attain quite respectable dimensions. A further difference exists in the femora of the palpi. In *E. spinosa* these bear beneath several imperfect rows of small denticles which are placed on the proximal three-quarters of the joint. They do not decrease in size from the base towards the apex. Some are sharp and some

